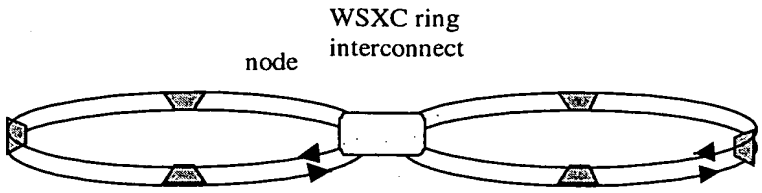


Figure 1

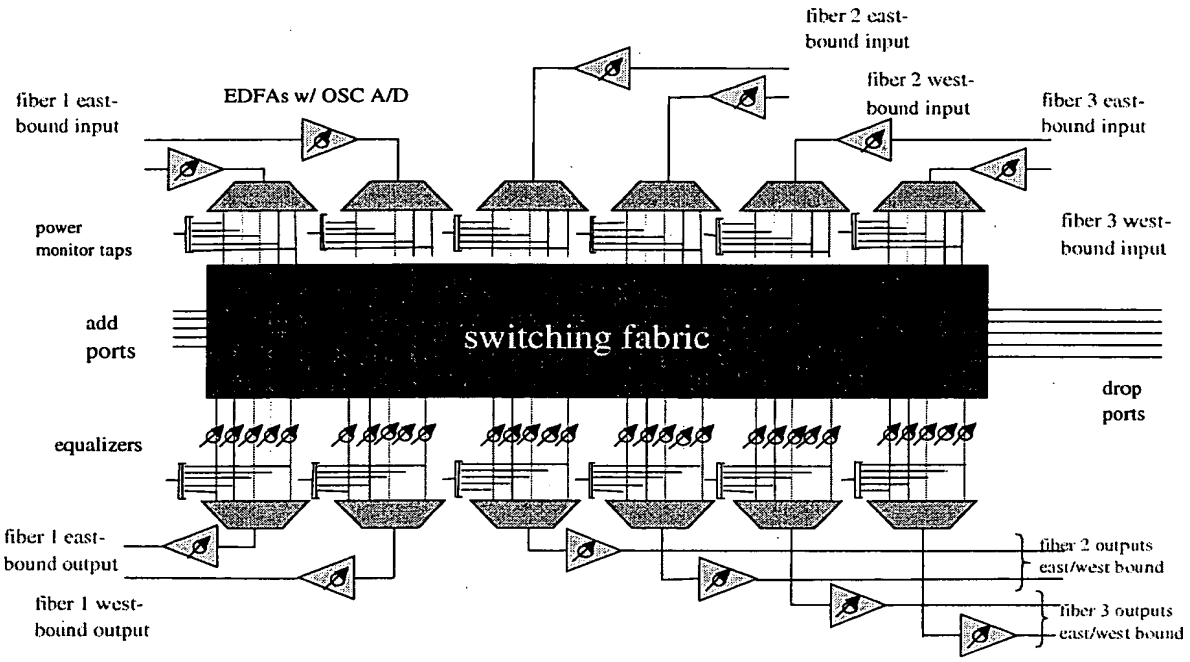


Figure 2

Figure 3

09958245 "05150

Document Classification: Confidential

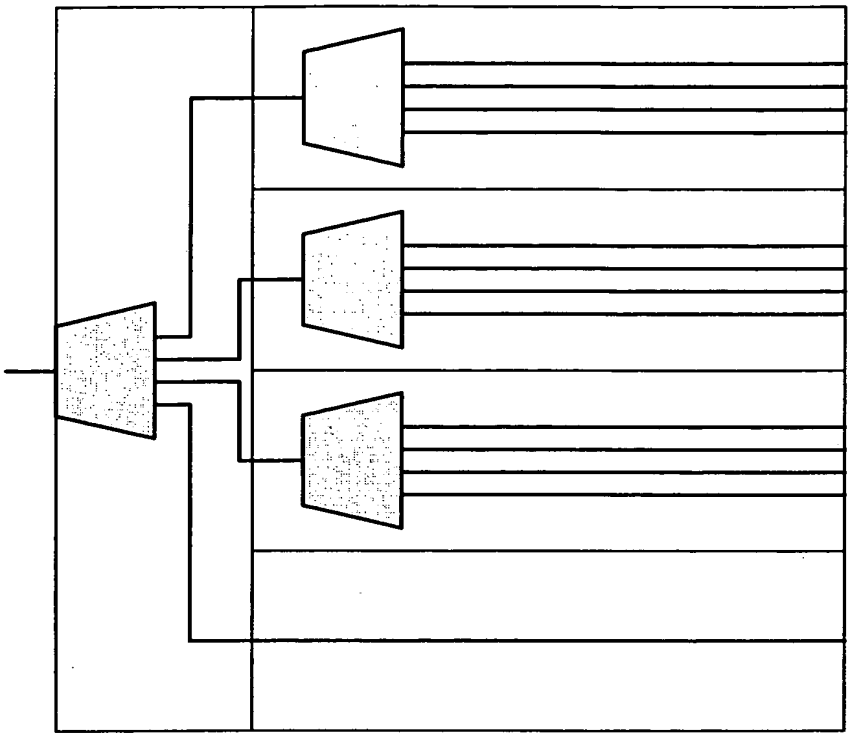


Figure 4

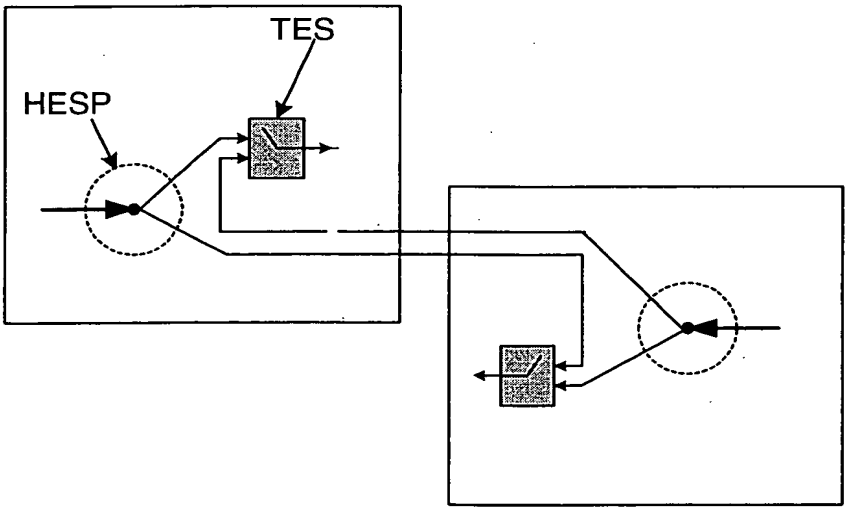


Figure 5

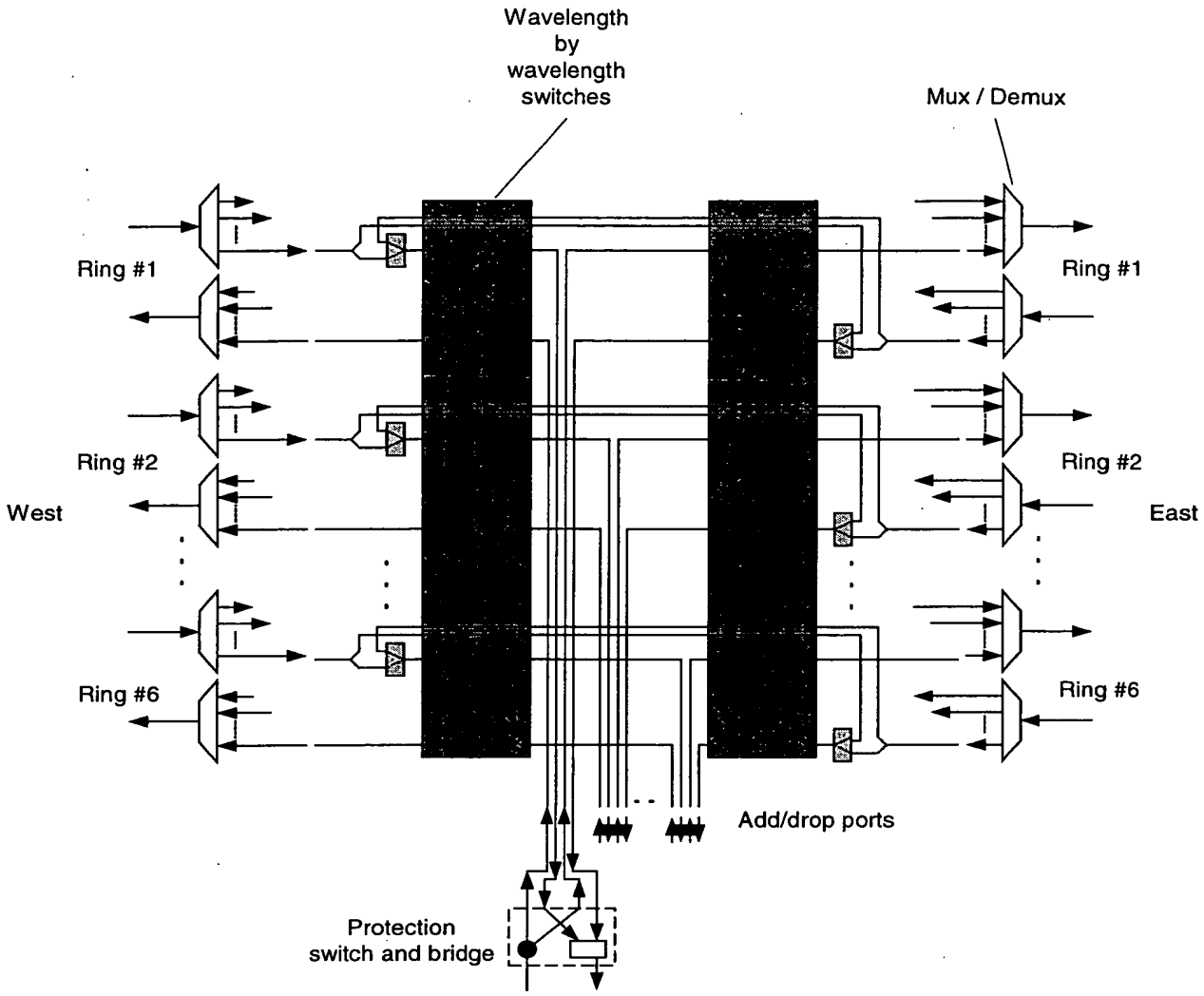

Wavelength
by
wavelength
switches
Mux / Demux
Ring #1
Ring #2
West
Ring #6
Ring #1
Ring #2
East
Ring #6
Add/drop ports
Protection
switch and bridge

Figure 6

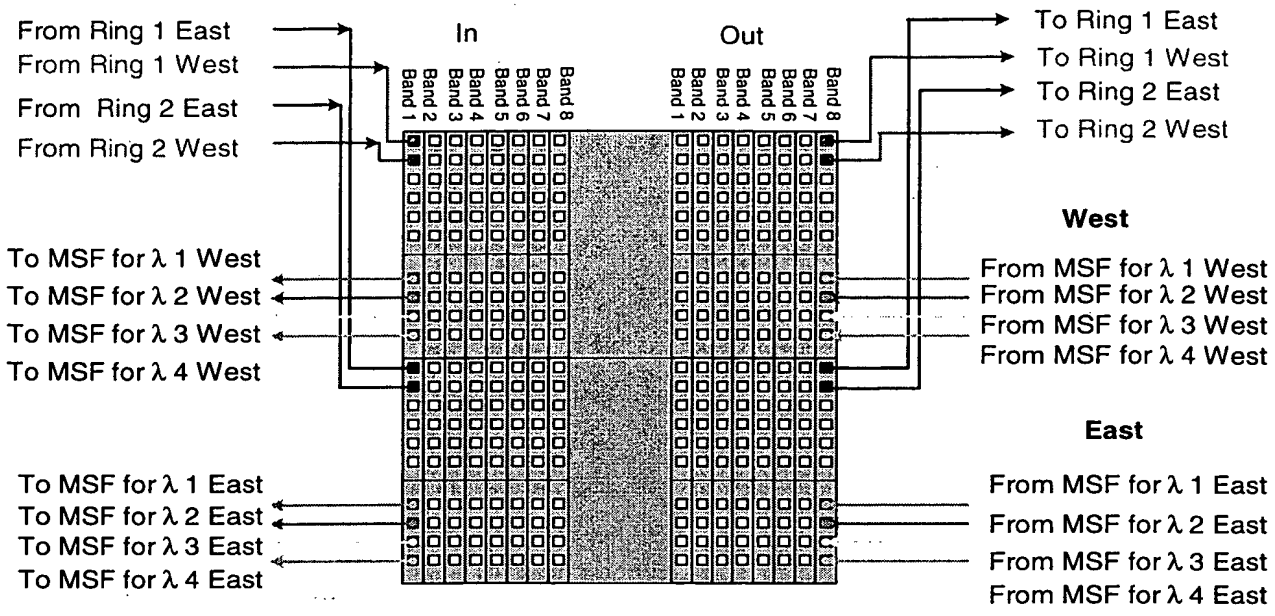


Figure 7

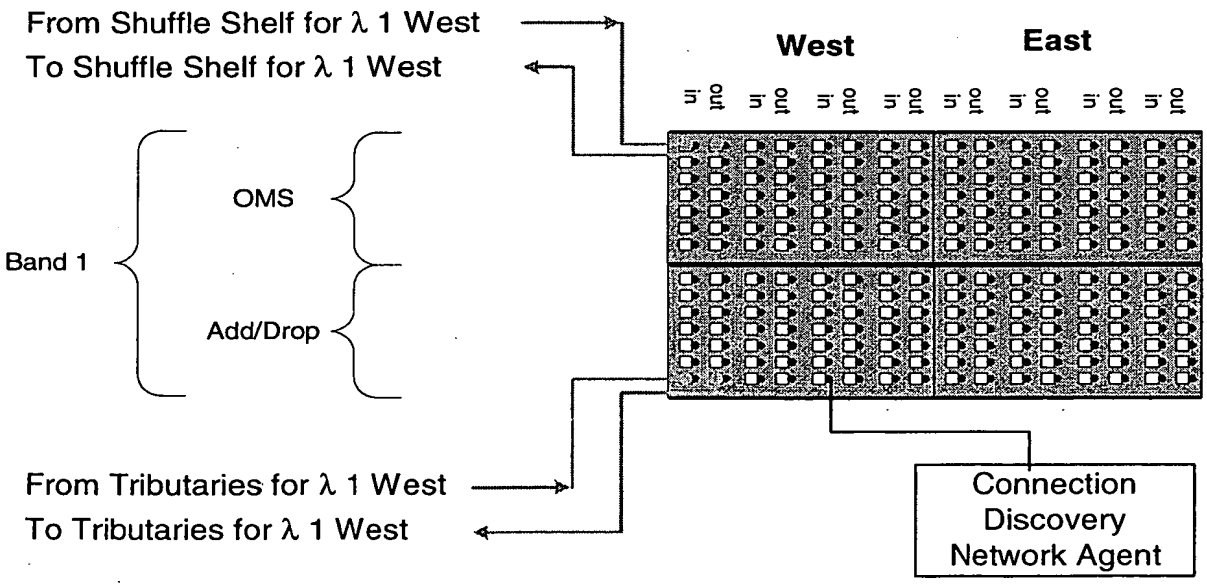


Figure 8

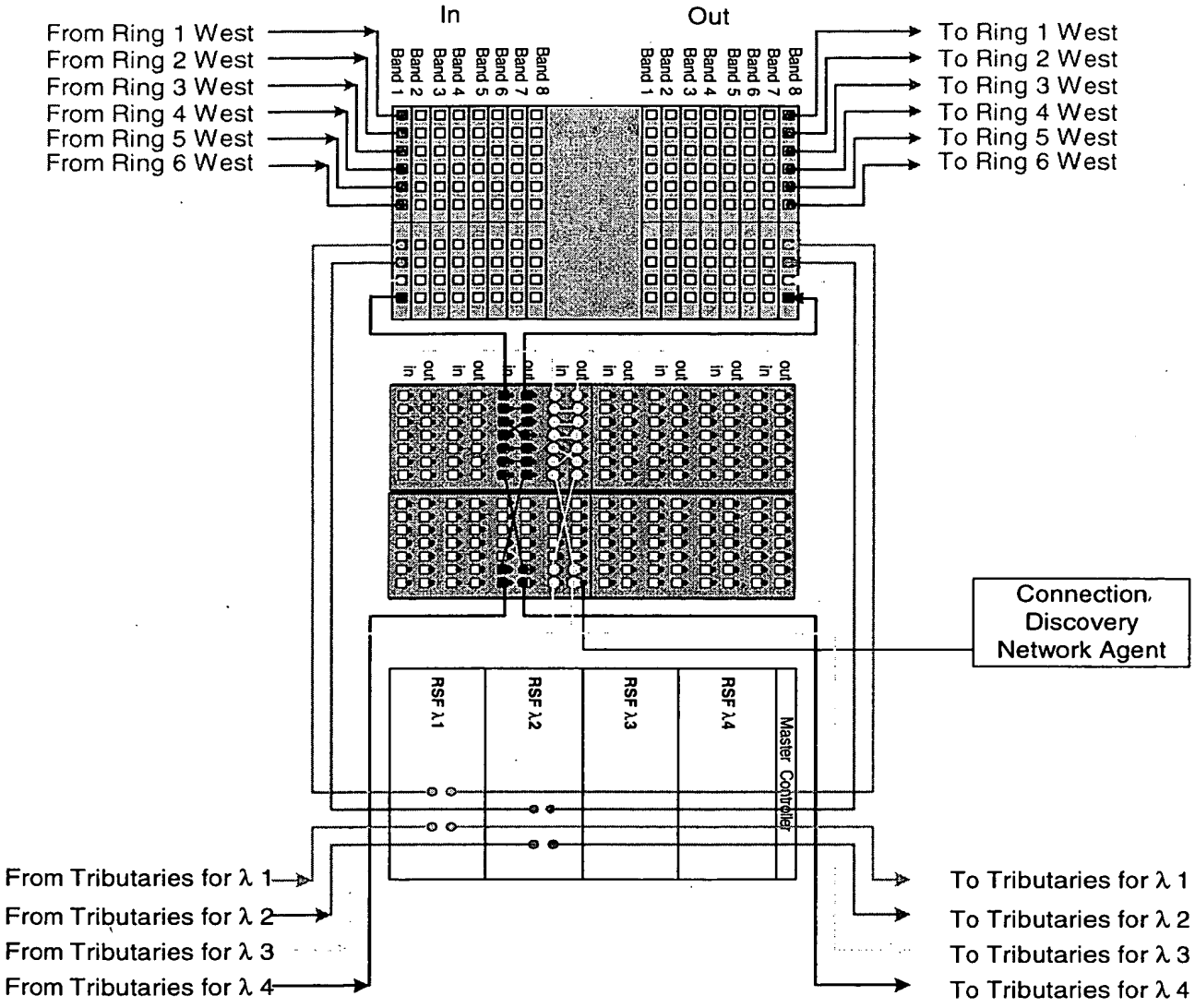

In
Out
From Ring 1 West
From Ring 2 West
From Ring 3 West
From Ring 4 West
From Ring 5 West
From Ring 6 West
To Ring 1 West
To Ring 2 West
To Ring 3 West
To Ring 4 West
To Ring 5 West
To Ring 6 West
Band 1
Band 2
Band 3
Band 4
Band 5
Band 6
Band 7
Band 8
in
out
Connection Discovery Network Agent
RSF λ1
RSF λ2
RSF λ3
RSF λ4
Master Controller
From Tributaries for λ 1
From Tributaries for λ 2
From Tributaries for λ 3
From Tributaries for λ 4
To Tributaries for λ 1
To Tributaries for λ 2
To Tributaries for λ 3
To Tributaries for λ 4

Figure 9

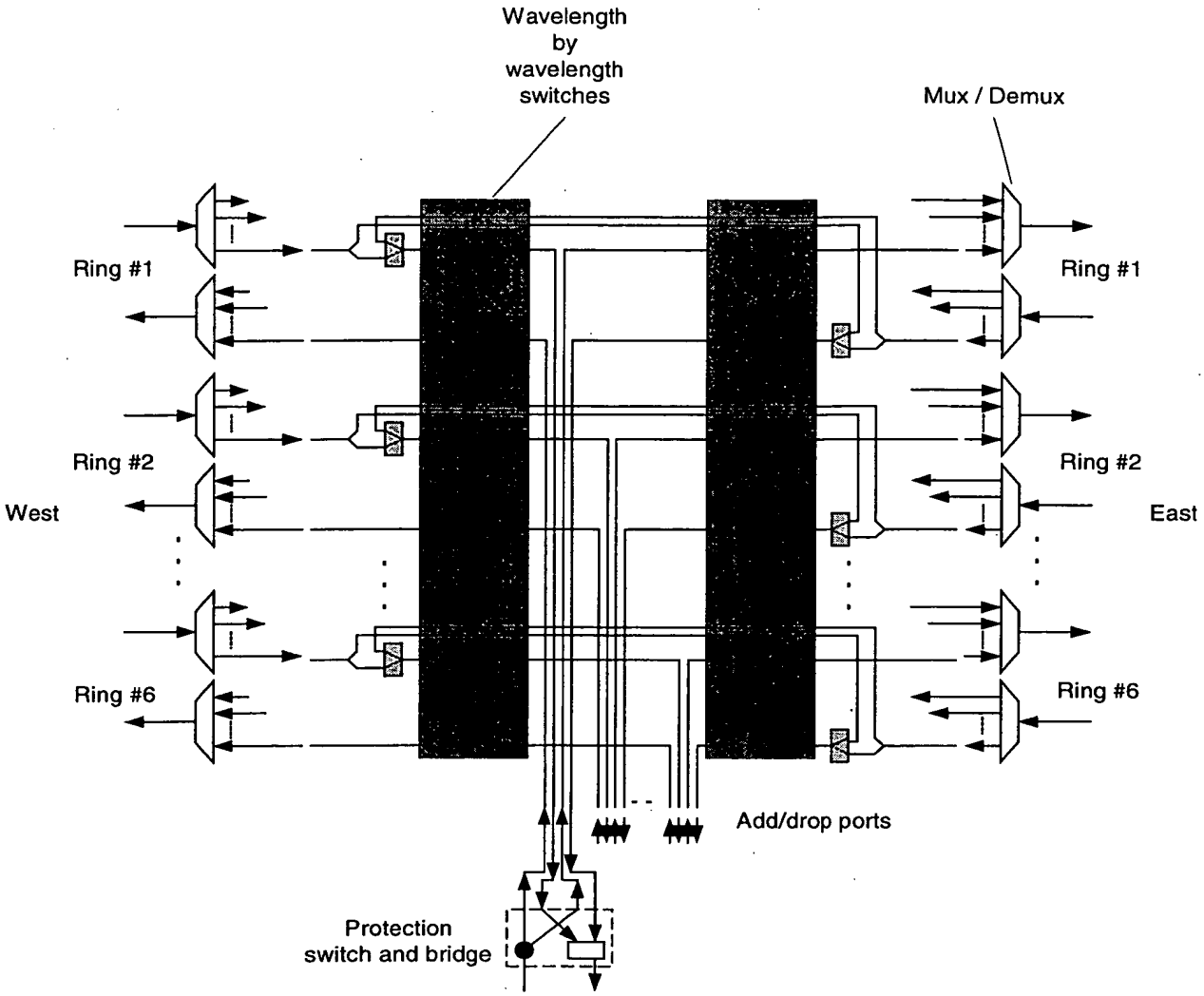

Wavelength
by
wavelength
switches
Mux / Demux
Ring #1
Ring #2
West
Ring #6
Ring #1
Ring #2
East
Ring #6
Add/drop ports
Protection
switch and bridge

Figure 10

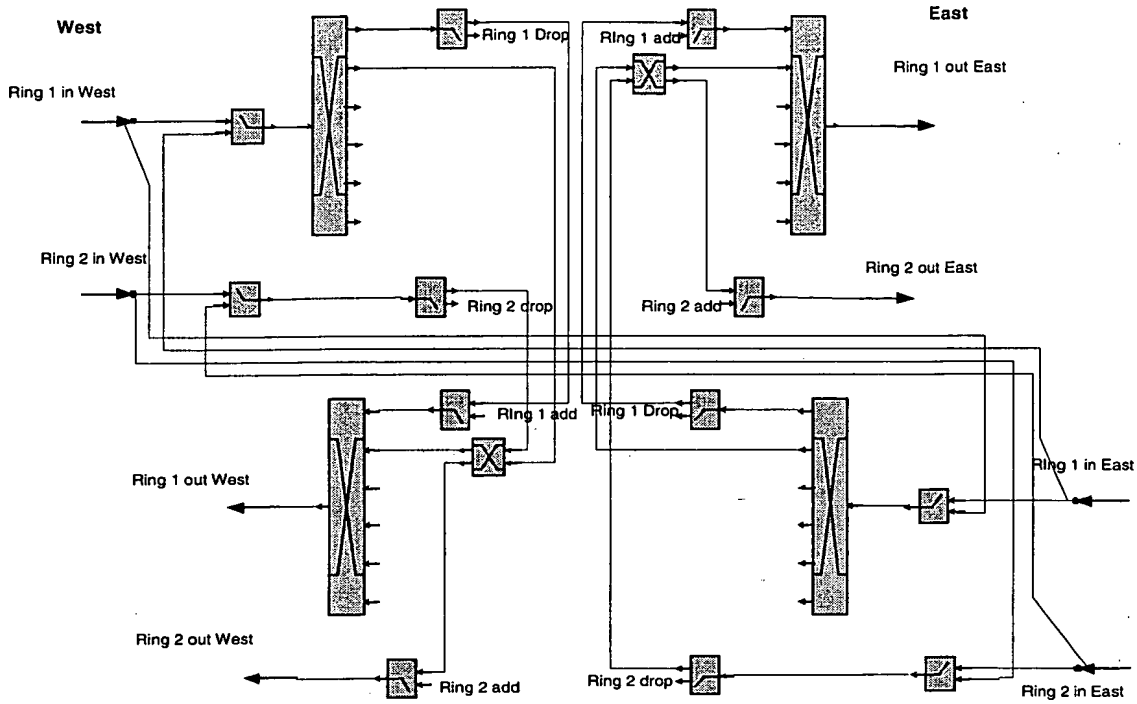


Figure 11

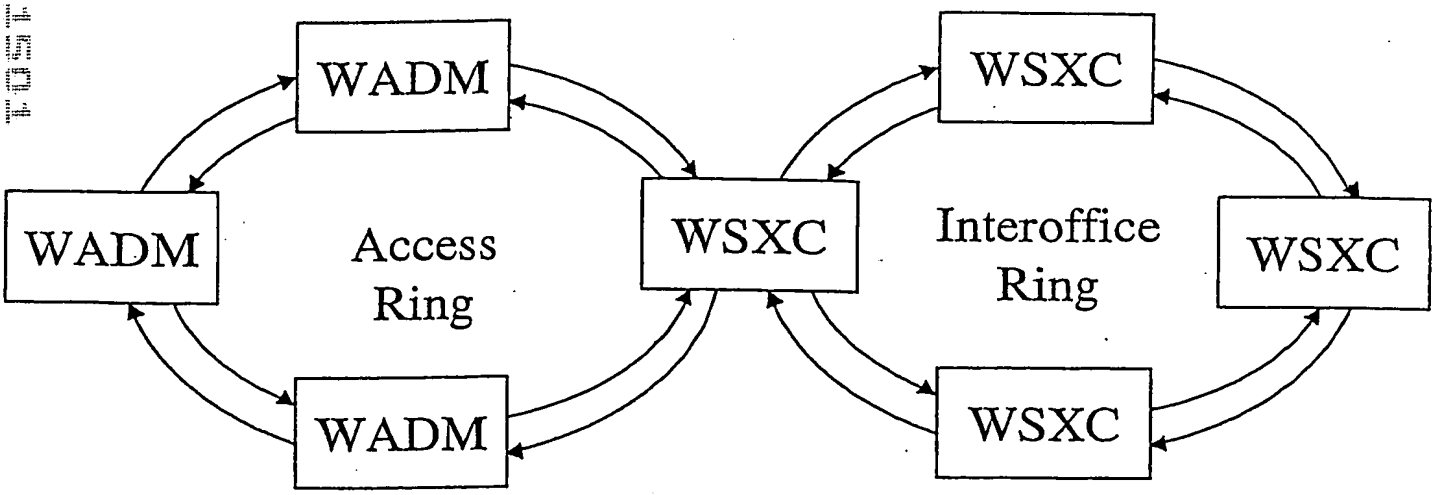


Figure 12

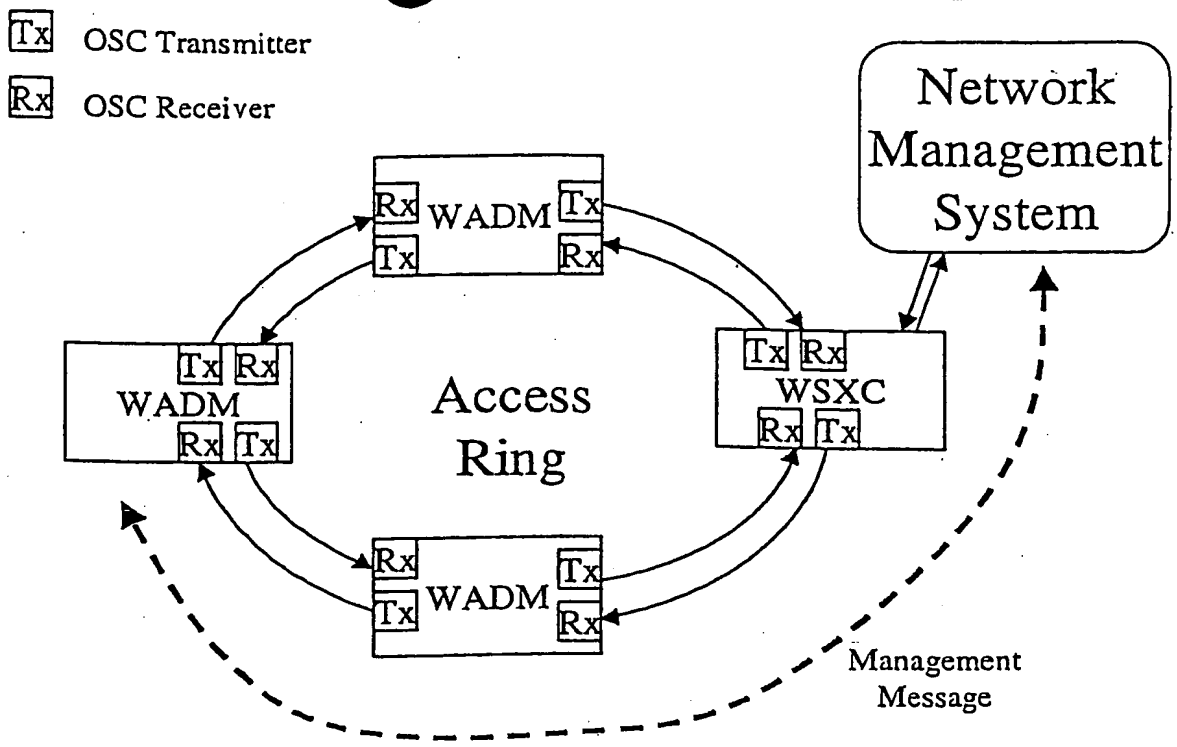


Figure 13

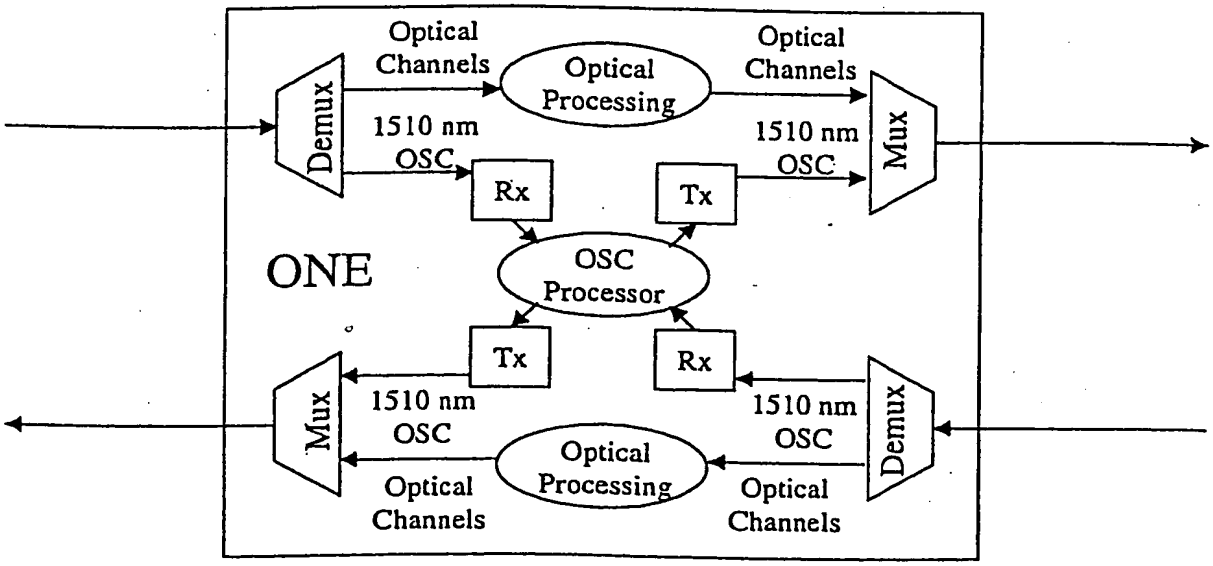


Figure 14

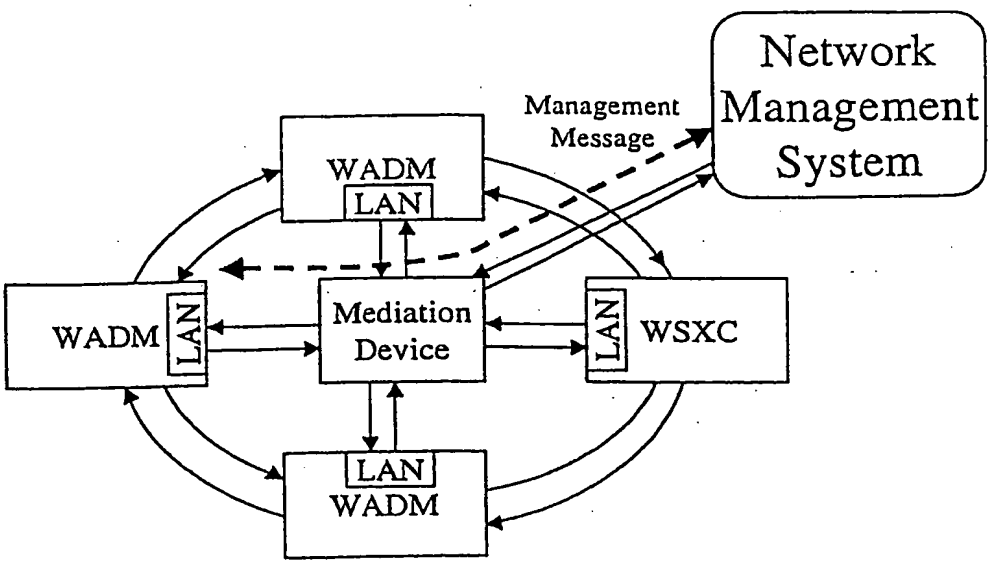


Figure 15

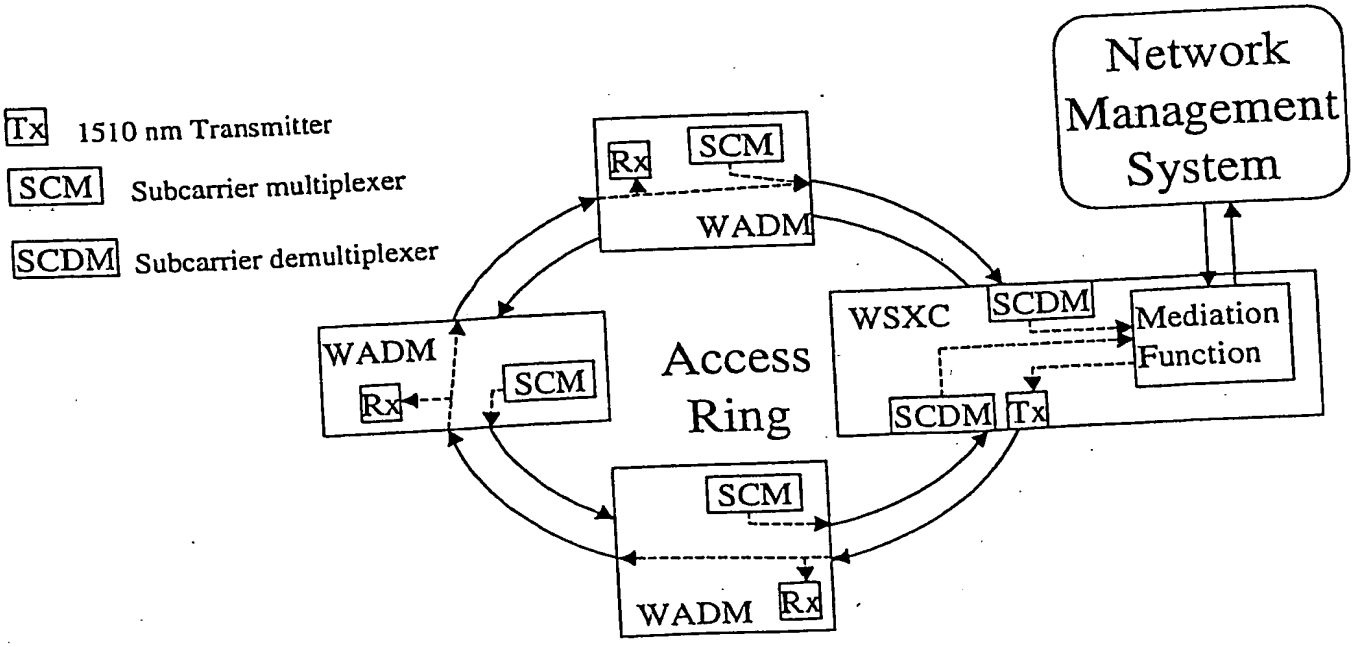


Figure 16

NMS to Ring Node 1	...	NMS to Ring Node N	Ring Node 1 to East Neighbor	Ring Node 1 to West Neighbor	...	Ring Node N to East Neighbor	Ring Node N to West Neighbor

Figure 17

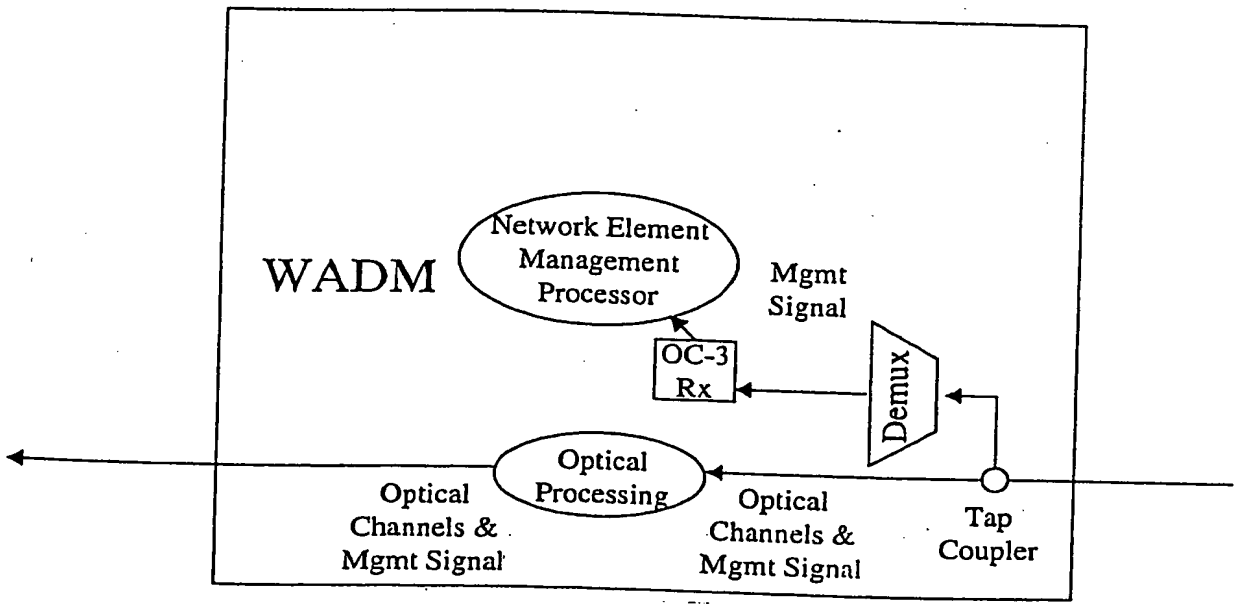


Figure 18

Ring Node J to East Neighbor	Ring Node J to West Neighbor	Ring Node J to NMS

Figure 19

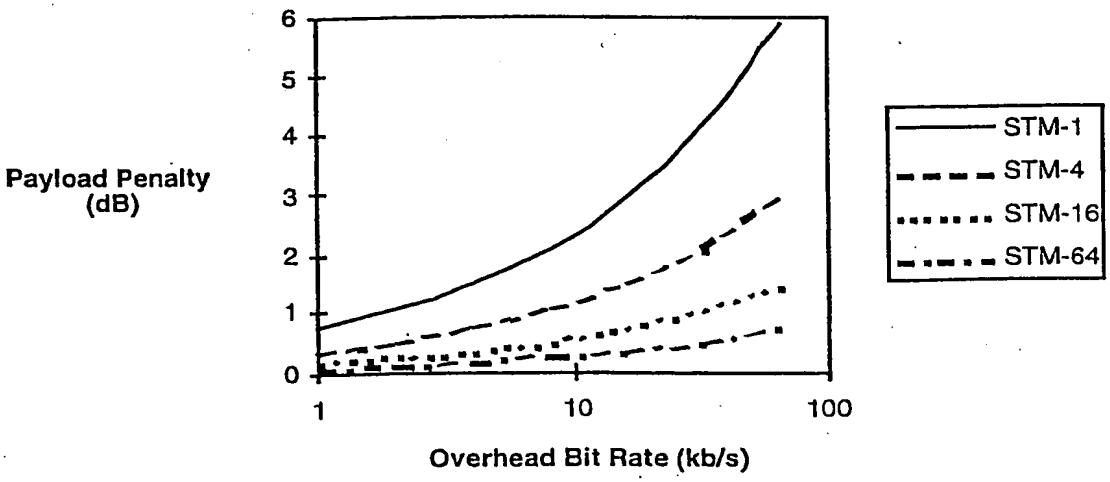


Figure 20

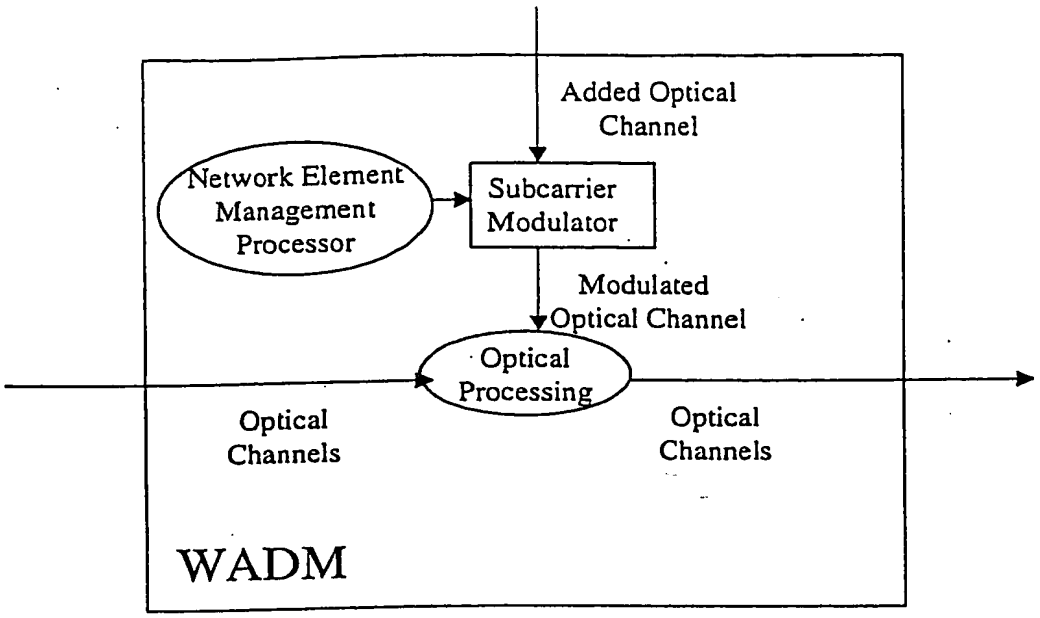


Figure 21

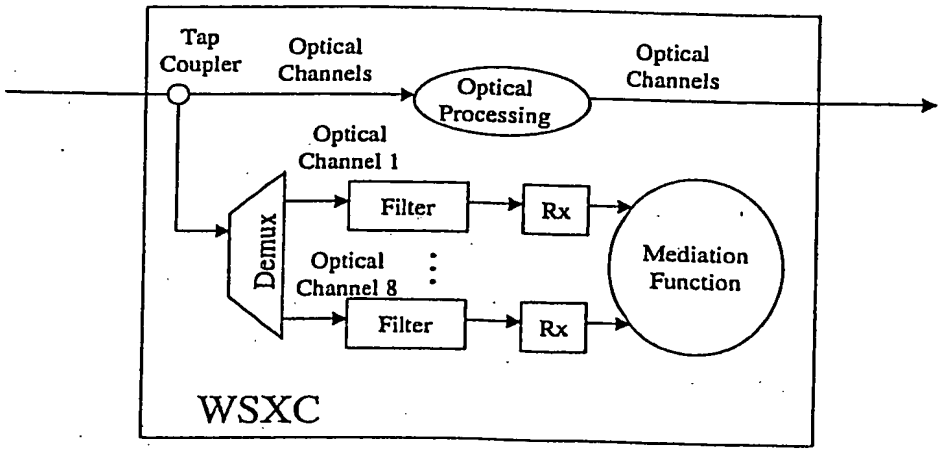
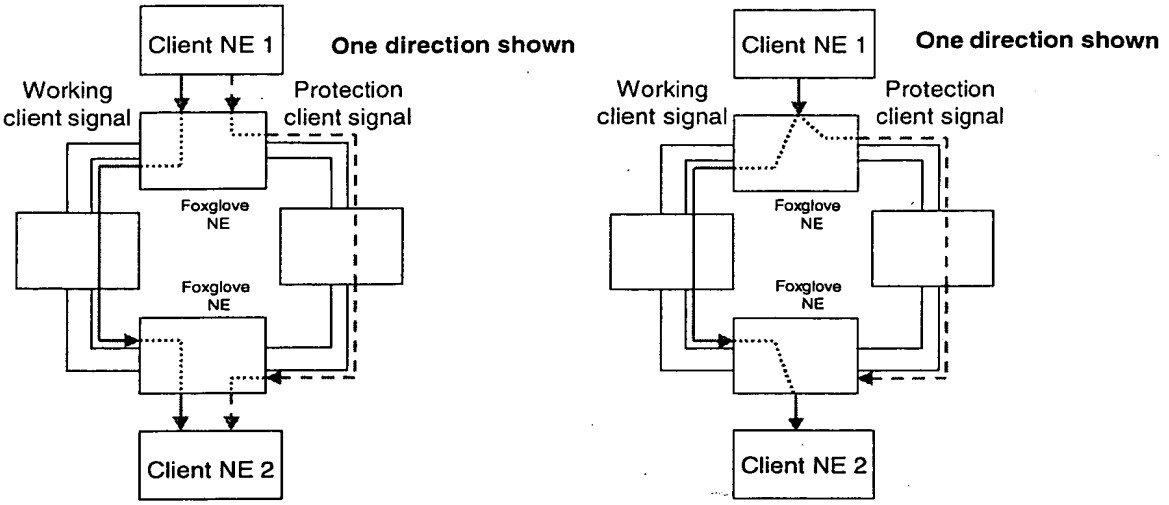


Figure 22



A B

Figure 23

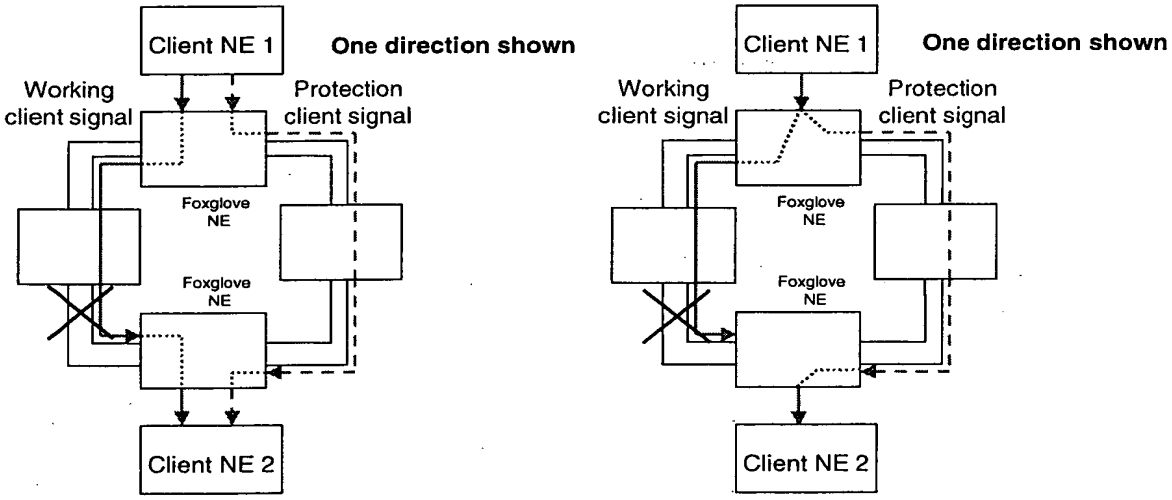


Figure 24

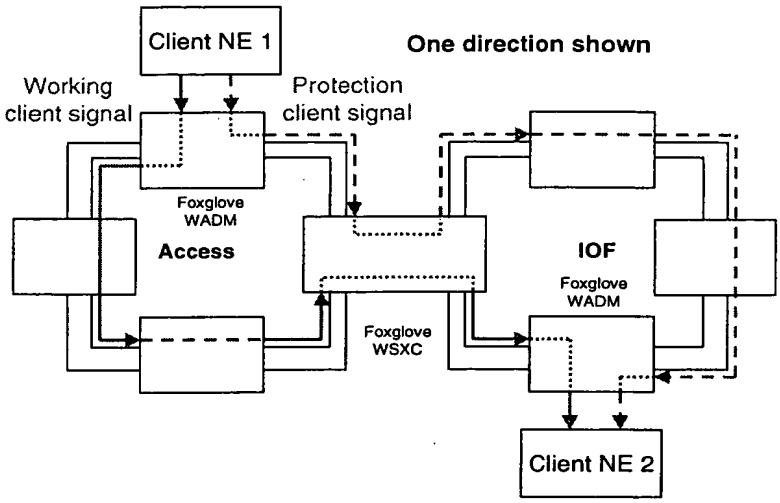


Figure 25

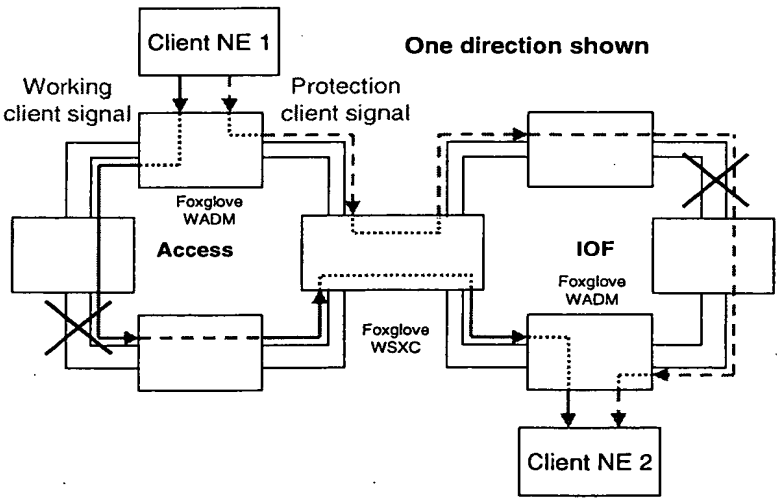


Figure 26

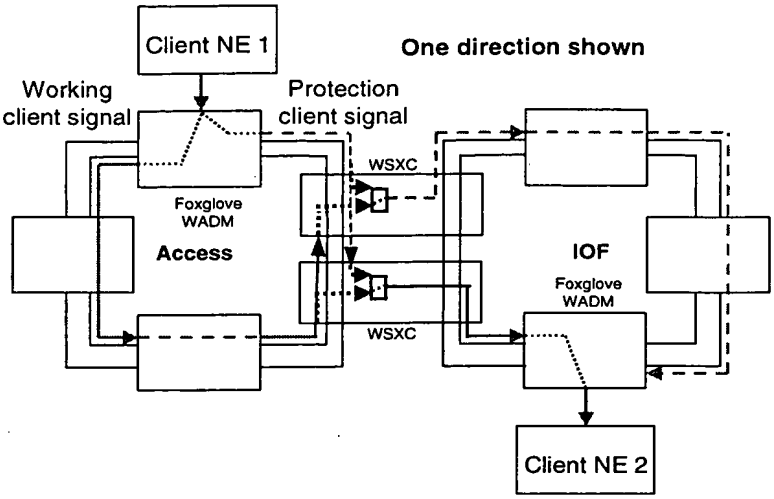


Figure 27 (Prior Art)

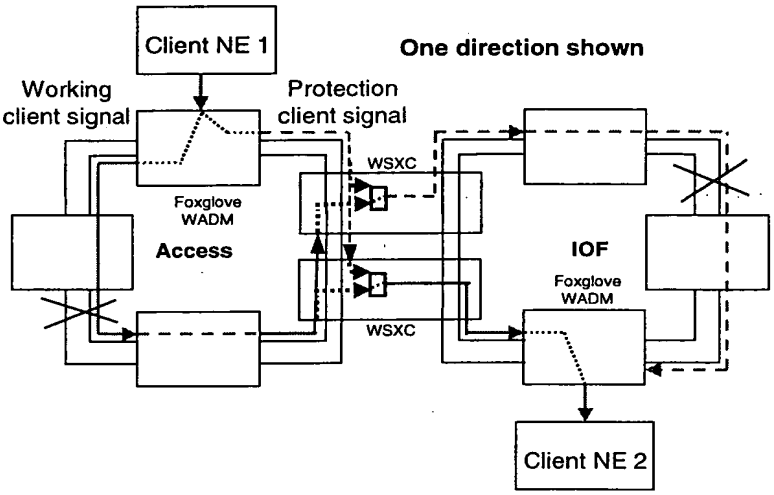


Figure 28 (Prior Art)

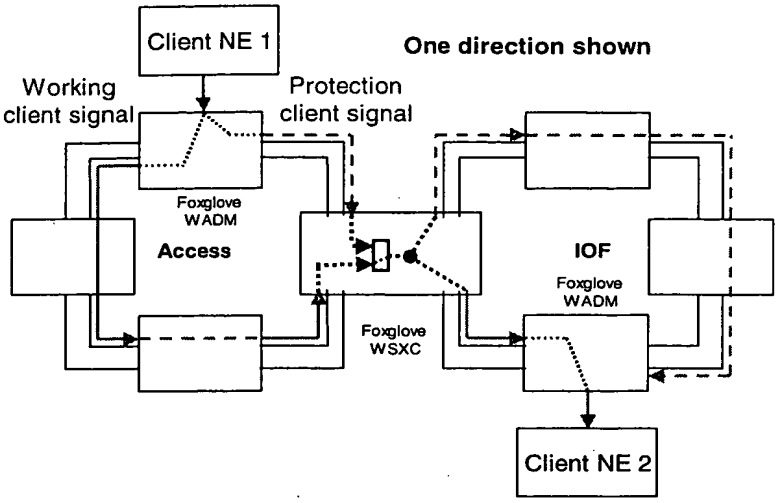


Figure 29

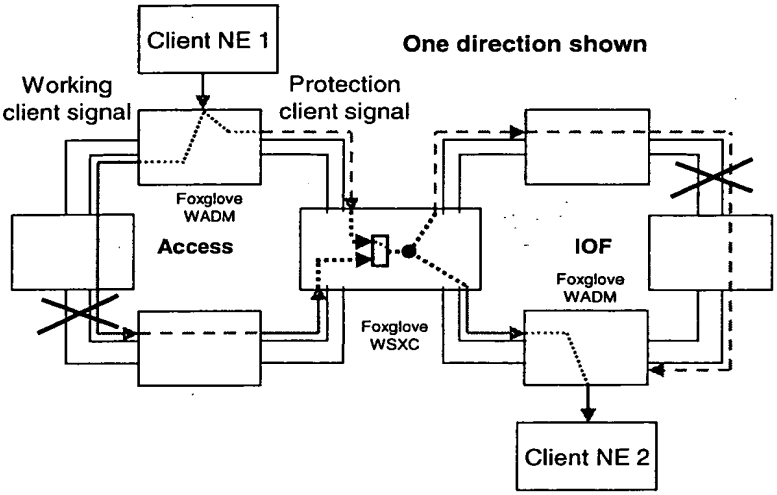


Figure 30

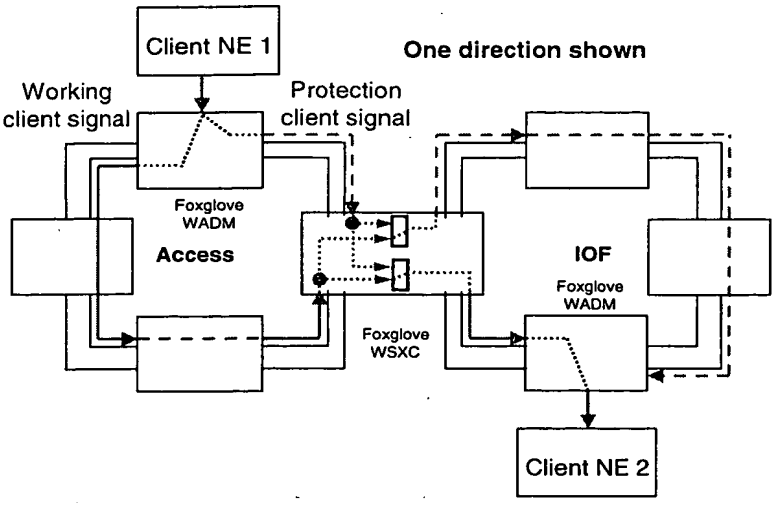


Figure 31

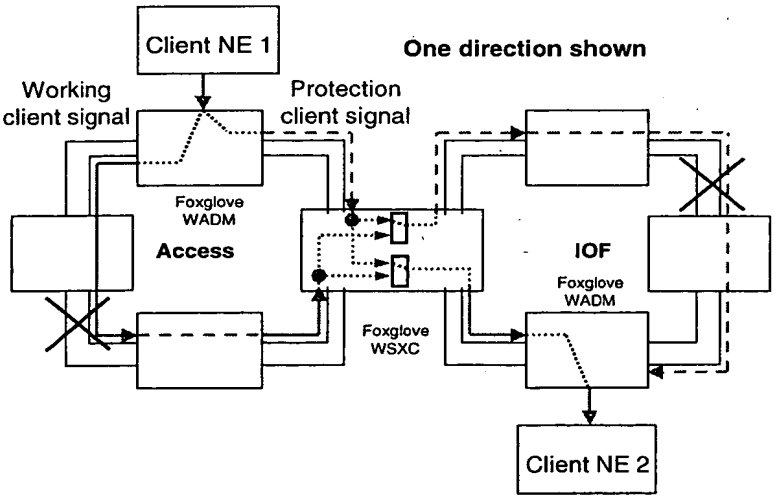


Figure 32

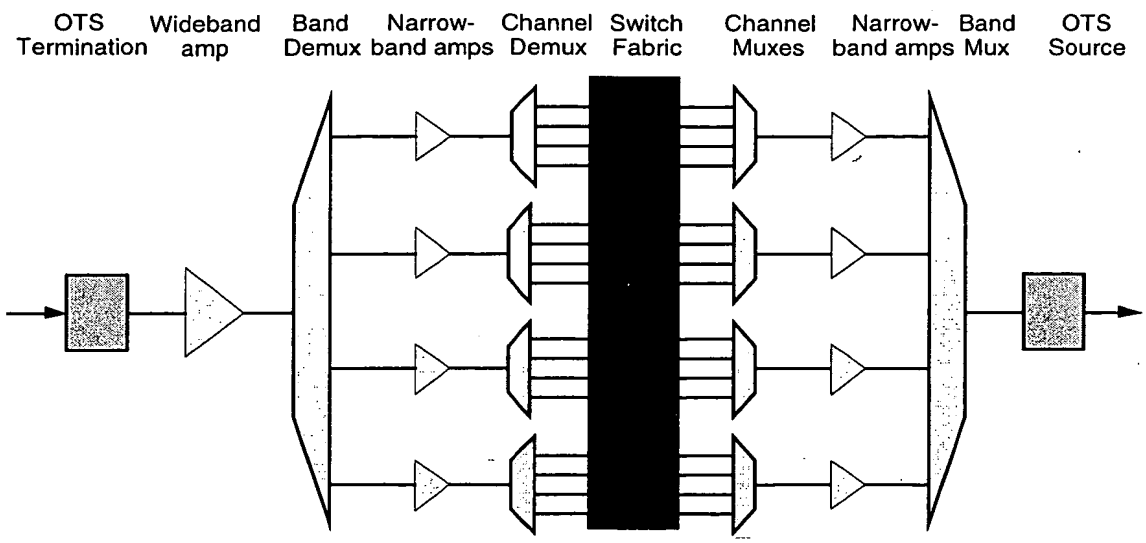


Figure 33

Docket No. 15-4-5-3-6-8-0

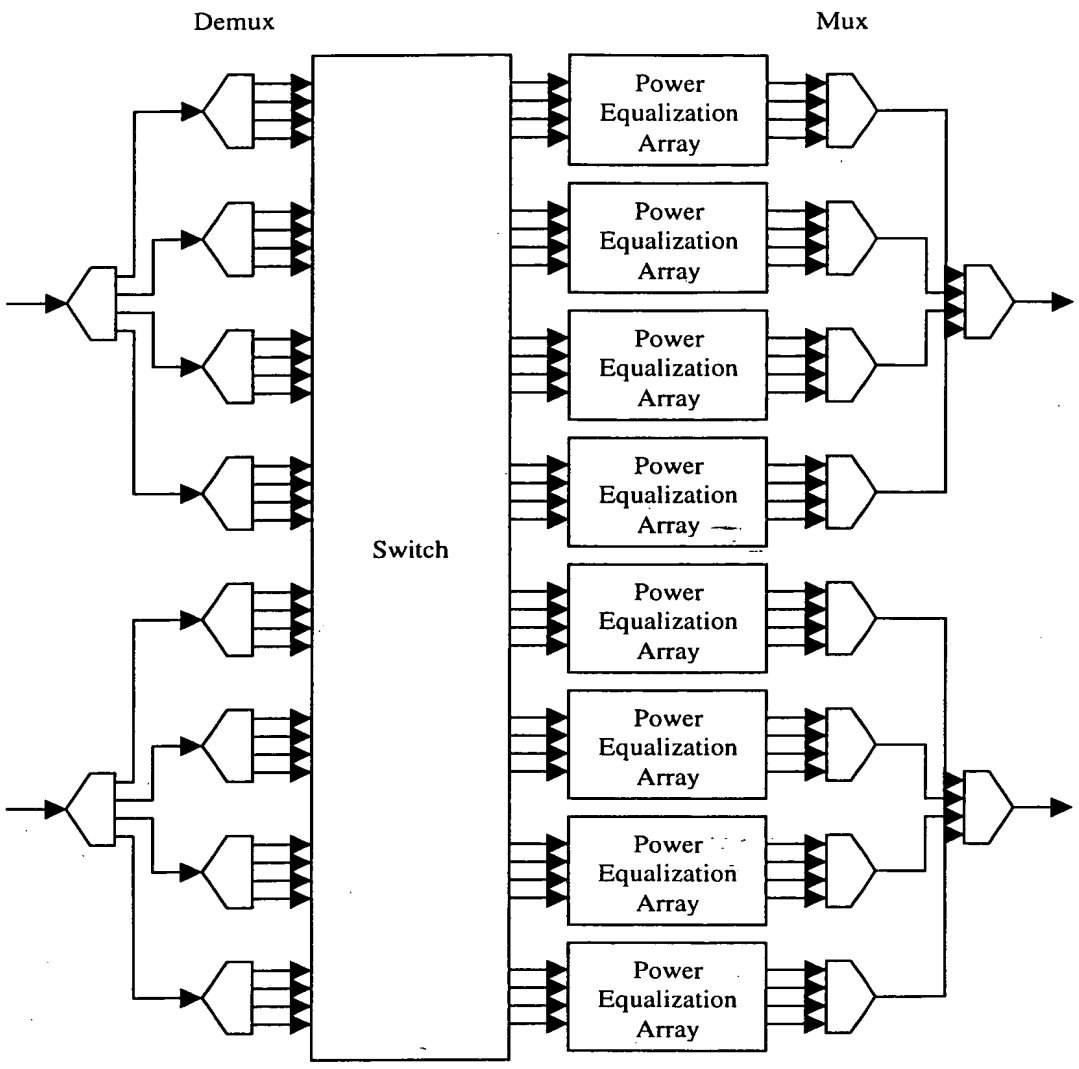

Demux
Mux
Power Equalization Array
Power Equalization Array
Power Equalization Array
Power Equalization Array
Switch
Power Equalization Array
Power Equalization Array
Power Equalization Array
Power Equalization Array

Figure 34

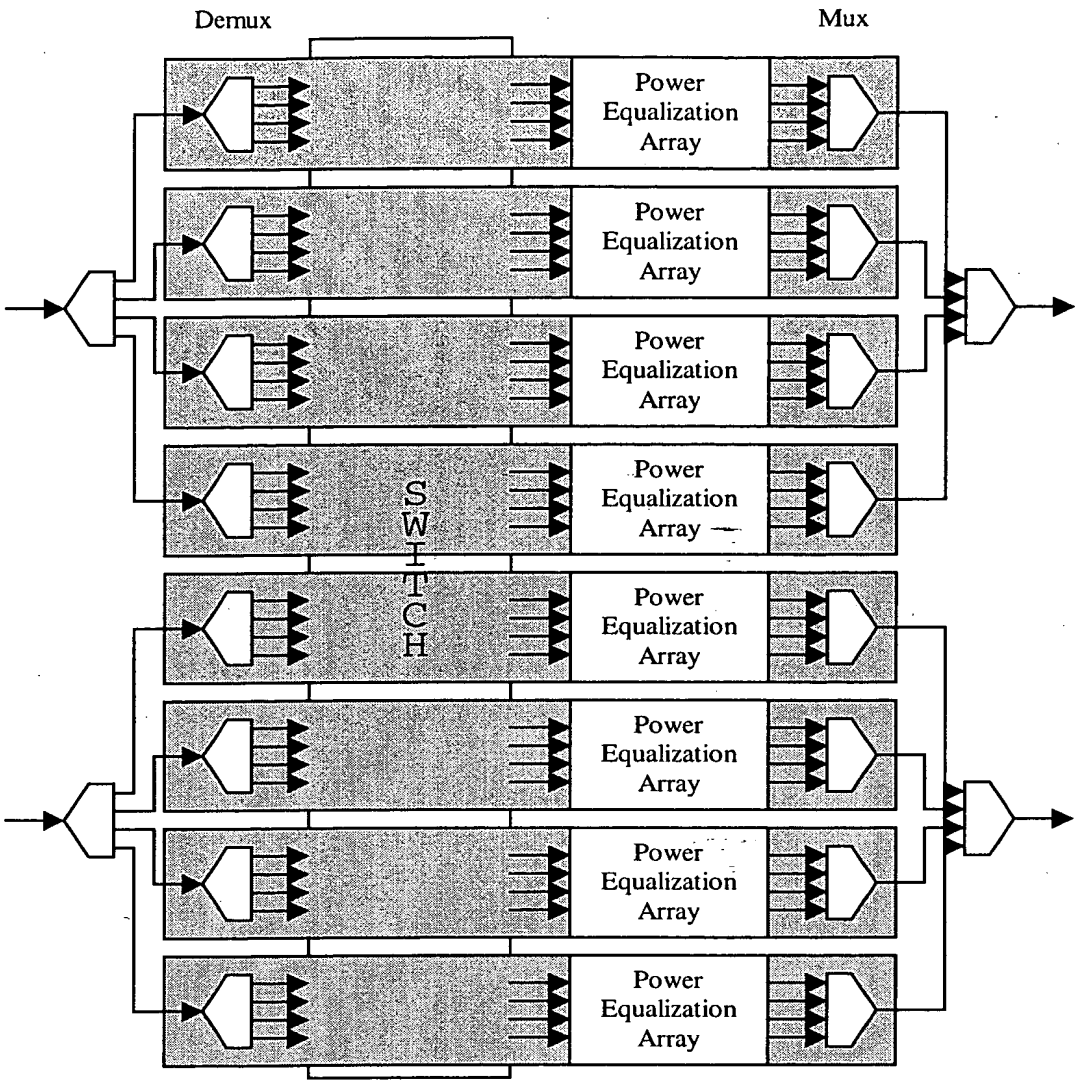

Demux
Mux
Power Equalization Array
Power Equalization Array
Power Equalization Array
Power Equalization Array
SWITCH
Power Equalization Array
Power Equalization Array
Power Equalization Array
Power Equalization Array

Figure 35

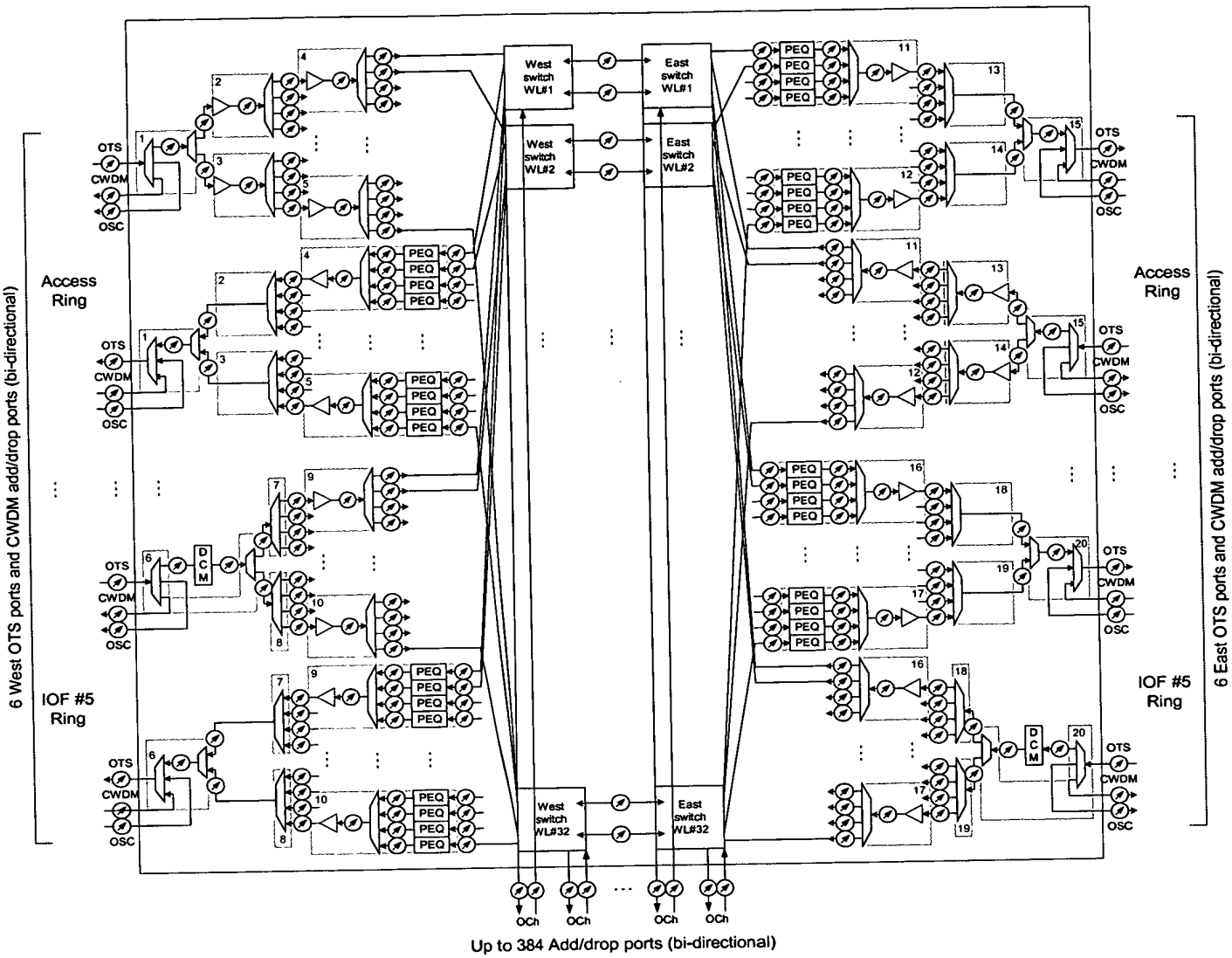

6 West OTS ports and CWDM add/drop ports (bi-directional)
Access Ring
IOF #5 Ring
OTS
CWDM
OSC
DCM
PEQ
West switch WL#1
West switch WL#2
West switch WL#32
East switch WL#1
East switch WL#2
East switch WL#32
OCh
Up to 384 Add/drop ports (bi-directional)
6 East OTS ports and CWDM add/drop ports (bi-directional)

Figure 36

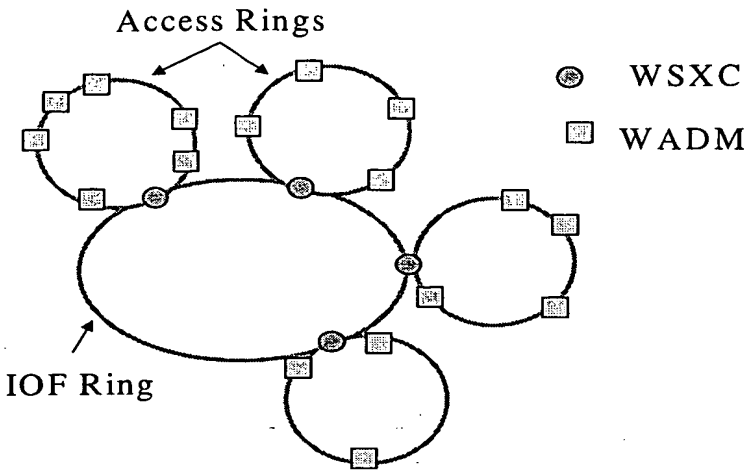


Figure 37

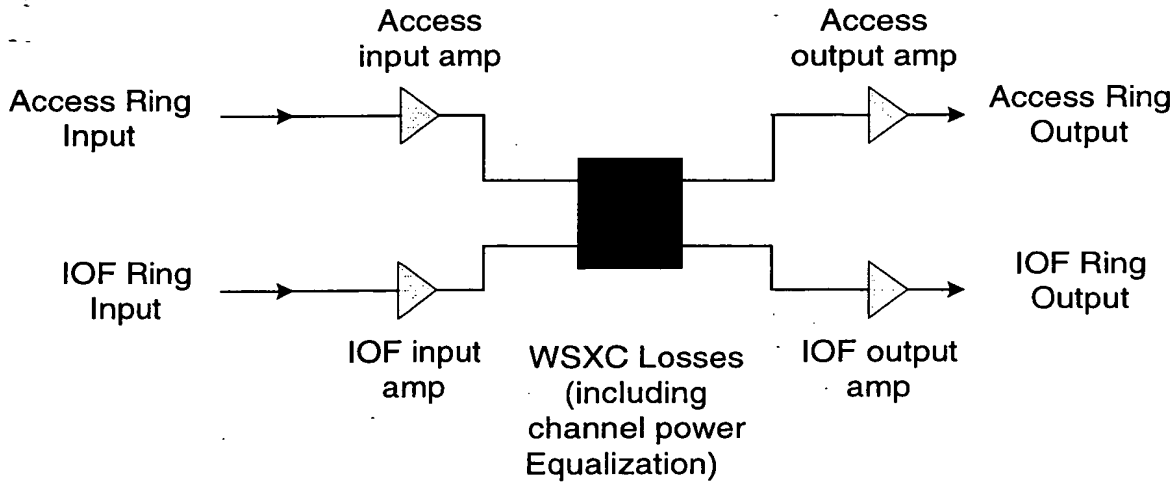


Figure 38